

- ROUNDY, P. V. 1926. The micro-fauna, in Roundy, P. V., Girty, G. H., and Goldman, M. I., Mississippian formations in San Saba County, Texas: *U.S. Geol. Survey Prof. Paper* 146, 5-23
- ULRICH, E. O., and BASSLER, R. L. 1926. A classification of the toothlike fossils, conodonts, with descriptions of American Devonian and Mississippian species: *U.S. Natl. Mus. Proc.* 68(12), 63 p.
- ZIEGLER, W., KLAPPER, G., and LINDSTRÖM, M. 1964. The validity of the name *Polygnathus* (Conodonta, Devonian and Lower Carboniferous): *Jour. Paleontology* 38(2) : 421-423

*POLYGNATHUS DUBIUS* HINDE, 1879 (CONODONTA): PROPOSED DESIGNATION OF A NEOTYPE UNDER THE PLENARY POWERS

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We are in agreement with paragraphs 1-9 of the proposal by Klapper, Lindström and Ziegler. However, in our opinion the designation of a neotype for *Polygnathus dubius* would be preferable for the following reasons:

1. *Polygnathus dubius* is a common and well-known species and it has been used extensively in North America, Europe and Australia (Clark and Ethington, 1967; Ziegler, 1962; Glenister and Klapper, 1966).
2. *Polygnathus dubius* was recognized as the basis for subzone designation in the Middle Devonian and, subsequently, the *Polygnathus dubius* zone has gained worldwide recognition as the lower zone of the standard Upper Devonian conodont sequence (Ziegler, 1962).
3. There is agreement among all conodont students as to the taxonomic content and concept of *Polygnathus dubius*.
4. Biologically distinct and geologically useful subspecies designations of *Polygnathus dubius* have been recognized. A name change for the species would result in a complex change for the subspecies, as well. For example, Ziegler and Klapper (in Ziegler, Klapper and Lindström, 1964, p. 422-423) proposed the name *Polygnathus asymmetrica ovalis* "for the concept centering around *P. dubia dubia* sensu Bischoff and Ziegler" illustrating the agreement concerning the concept of the species but also the fact that *Polygnathus dubia asymmetrica* Bischoff and Ziegler would become *Polygnathus asymmetrica asymmetrica*.
5. The proposed new type-species *Polygnathus robusticostatus* Bischoff and Ziegler, 1957, is a different kind of *Polygnathus* from *P. dubius*. Future taxonomic difficulties could result from a change in the concept of the type.

Because a designation of a new type specimen would avoid the difficulties arising from a new concept of the type and from a name change, it is suggested to annul the type specimen designation of *Polygnathus dubius*. A neotype could then be substituted.

A suitable, well preserved and isolated specimen is available from the Squaw Bay Limestone in Michigan. It conforms to the presently agreed upon concept of *P. dubius* and will be illustrated in upper, lateral and lower views in the July, 1967, *Journal of Paleontology* (Müller and Clark, Pl. 1, fig. 5a-c, United States National Museum Number 155438). As an alternate, the specimen illustrated by Ziegler, 1958, Pl. 1, fig. 1, 2a, b, from the Martenburg near Adorf, Rheinisches Schiefergebirge in middle Europe, could be designated as neotype.

We therefore ask the International Commission on Zoological Nomenclature:

- (1) to use its plenary powers to set aside all designations of type-specimens for the nominal species *Polygnathus dubius* Hinde, 1879, and having done so to designate the specimen U.S.N.M. No. 155438 to be the neotype of that species;
- (2) to place the generic name *Polygnathus* Hinde, 1879 (gender : masculine), type-species, by designation by Miller, 1889, *Polygnathus dubius* Hinde, 1879, on the Official List of Generic Names in Zoology;
- (3) to place the specific name *dubius* Hinde, 1879, as published in the binomen *Polygnathus dubius*, as interpreted by the neotype designated under the plenary powers (type-species of *Polygnathus* Hinde, 1879) on the Official List of Specific Names in Zoology.

#### REFERENCES

- CLARK, D. L., and ETHINGTON, R. L. 1967. Conodonts and zonation of the Upper Devonian in the Great Basin: *Geol. Soc. America Memoir* 103, 107 p., 9 pls., 11 figs.
- GLENISTER, B. F., and KLAPPER, GILBERT. 1966. Upper Devonian conodonts from the Canning Basin, Western Australia: *Jour. Paleontology* 40 : 777-842, pls. 85-96
- MÜLLER, K. J., and CLARK, D. L. 1967. Early Late Devonian conodonts from the Squaw Bay Formation in Michigan: *Jour. Paleontology* 41, July, in press
- ZIEGLER, WILLI. 1958. Conodontenfeinstratigraphische Untersuchungen an der Grenze Mitteldevon/Oberdevon und in der Adorfstufe: *Notizbl. hess. L.-Amt Bodenf.* 87 : 7-77, pl. 1-12, 7 figs.